

DWR Climate News Digest

October 1st to November 14th, 2013

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The information provided herein is a selected compilation of recent popular news articles, publications, and other information relevant to climate change and water management. The links provided herein are intended to provide educational and thought-provoking material for water managers and water users.

To subscribe to the DWR Climate News listserv and receive notifications when new editions are posted, send an email to: climatechange@water.ca.gov.

TOPICS [Find older items in the [Climate News Archive](#)]

Reports

[Preparing California for Extreme Heat: Guidance and Recommendations](#)

[Cal EPA and California Dept of Public Health - October 2013]

[California's Water-Energy-Climate Nexus](#) [Climate Registry - October 2013] ("*Nearly twenty percent of California's electricity and more than thirty percent of non-power plant natural gas is used for water-related purposes: for collection, production, transport, treatment and delivery of water to end users; during the consumption and use of water; and for collection, treatment, and disposal or reuse of wastewater*")

[Natural Infrastructure - Investing in Forested Landscapes for Source Water Protection in the United States](#) [World Resources Institute - October 2013] ("*Investing in integrated water management strategies that combine engineered solutions with 'natural infrastructure' can reduce costs, enhance services, and provide a suite of co-benefits for communities and the environment*")

[Climate Change Consortium for Specialty Crops - Impacts and Strategies for Resilience](#)

[California Department of Food and Agriculture - October 3, 2013]

Published Literature

[Unprecedented recent summer warmth in Arctic Canada](#)

[Geophysical Research Letters - November 4, 2013]

[Critical impacts of global warming on land ecosystems](#)

[Earth System Dynamics - October 2013]

[Biotic and human vulnerability to projected changes in ocean biogeochemistry over the 21st Century](#) [PLOS Biology - October 2013]

[Digestion in sea urchin larvae impaired under ocean acidification](#)

[Nature Climate Change - October 2013]

[The projected timing of climate departure from recent variability](#) [Nature 502:183-187] (*"Here we present a new index of the year when the projected mean climate of a given location moves to a state continuously outside the bounds of historical variability under alternative greenhouse gas emissions scenarios"*)

[Climate change and North American rangelands: Trends, projections, and implications](#)

[Rangeland Ecology and Management - September 2013]

[Economic mitigation challenges: how further delay closes the door for achieving climate targets](#) [Environmental Research Letters - September 2013]

[Co-benefits of mitigating global greenhouse gas emissions for future air quality and human health](#) [Nature Climate Change - September 2013]

Sea-level Rise and other Ocean Impacts

[Scientists warn of hot, sour, breathless oceans](#) [SF Gate - November 13, 2013]

[Diatom algae populations tell a story about climate change in Greenland](#)

[Water Online - November 4, 2013]

[Oceans warming faster than they have over past 10,000 years](#) [Time - November 1, 2013]

[World ocean systems undermined by climate change by 2100](#) [Eurekalert - October 15, 2013]

[Researchers find historic ocean acidification levels: 'The next mass extinction may have already begun'](#) [Climate Progress - October 3, 2013]

Agriculture/Food Production

[Climate change seen posing risk to food supplies](#) [New York Times - November 1, 2013]

[Climate changing in California farm regions](#) [Dairy Today - October 17, 2013] (*"While agriculture's part in driving the state's climate change is only 7%, the state's ag industries will be heavily affected by climate changes"*)

General Water Management

[Dried up: Climate change could leave another billion people without enough water](#)

[The Verge - October 11, 2013]

[Water shortage seen worsening on climate change in Potsdam study](#)

[Bloomberg - October 8, 2013]

Extreme Weather Events

[National Drought Resilience Partnership](#) [FEMA, USACE, USDA - November 15, 2013]

[Super typhoon Haiyan a preview of calamities to come](#) [Seattle Globalist - November 10, 2013]

[Typhoon Haiyan: Most powerful storm to ever hit land batters Philippines with 235 mph winds](#) [Independent - November 8, 2013]

[After the flood: How climate change changed one Colorado community forever](#)

[Climate Progress - October 10, 2013]

Human Health Impacts

[To your good health: Climate action may yield significant health 'co-benefits'](#)

[US EPA - October 31, 2013]

[Three startling ways climate change could affect your health](#)

[AccuWeather - October 15, 2013]

Wildlife and Ecosystem Impacts

[As climate warms American west, iconic trout in jeopardy](#) [NPR - November 14, 2013]

[Nature network hope for birds threatened by climate change](#) [PhysOrg - November 5, 2013]

[Researchers detail climate-change impacts in ecological journal](#) [PhysOrg - November 5, 2013]

[Warming will disturb balance of soil nutrients in drylands, making drylands less productive](#)

[Science Daily - October 30, 2013]

[Is a constructive conservation the last chance for biodiversity?](#) [Eurekalert - October 17, 2013]

[Australian scientists plan to relocate wildlife threatened by climate change](#)

[Guardian - October 16, 2013]

[Climate change creates complicated consequences for North America's forests](#) [Science Daily - October 15, 2013]

[How is climate change jeopardizing the sounds of nature?](#) [AccuWeather - October 15, 2013]

[Around the Arctic, frozen earth is thawing and creating 'drunken forests'](#)
[Climate Progress - October 9, 2013]

[Terrestrial ecosystems at risk of major shifts as temperatures increase](#)
[Science Daily - October 8, 2013] (*"Over 80% of the world's ice-free land is at risk of profound ecosystem transformation by 2100...unless mitigation limits warming to around 2 degrees C above preindustrial levels"*)

Greenhouse Gas Mitigation

[To fix climate change, scientists turn to hacking the earth](#) [NPR - October 20, 2013]

[The case for combating climate change with nuclear power and fracking](#)
[Forbes - October 7, 2013]

[Nuclear power no answer to climate change](#) [The Age - October 7, 2013]

[Latest IPCC climate report puts geoengineering in the spotlight](#)
[Scientific American - October 2, 2013]

Climate Adaptation

[Eight tribes that are way ahead of the climate-adaptation curve](#)
[Indian Country - October 15, 2013]

International Planning

[Britain's new flood protection plan: Surrender to the ocean](#)
[Climate Progress - November 5, 2013]

[Climate change puts 5 million Israelis at risk of severe flooding events](#)
[Jerusalem Post - November 5, 2013]

[Marshall Islands pioneers sustainable technology solutions to climate change](#)
[Guardian - November 5, 2013]

[In Australia, raging early spring wildfires have rekindled a raging debate over climate change](#)
[PRI - October 23, 2013]

[The Bay of Bengal, in peril from climate change](#) [New York Times - October 13, 2013]

[Tackling climate change: Copenhagen's sustainable city design](#) [Guardian - October 8, 2013]

[Climate change and how New Zealand cities are preparing for it](#)

[New Zealand Herald - October 6, 2013]

Climate Change Modeling

[web visualization tool] [IPCC Projections](#)

[University of Oxford Environmental Change Institute - October 2013] *[use this tool to see how different emissions scenarios project future conditions and how they have changed from the last IPCC report (AR4) to the recently released document (AR5)]*

Legislative Updates

[Clean Air Act: U.S. Supreme Court to tackle GHG permitting and cross-state air pollution in 2013 term](#) [Marten Law - October 16, 2013]

BLOGS/Commentary

Brad Plumer on "[How the world is failing at its climate goals, in one giant chart](#)"

[Washington Post - November 5, 2013]

Joshua Tucker on "[The fundamental *political* challenge of climate change](#)"

[Washington Post - November 4, 2013] *("...it may be that reminding people how much they love their grandchildren is ultimately as important as knocking a few more percentage points of levels of statistical uncertainty")*

Jane Lubchenco and Thomas E. Lovejoy on "[The climate change era is already upon us](#)"

[The Daily Climate - October 28, 2013]

Phil Plait on "[10 failed climate change denial arguments](#)" [Slate - October 28, 2013]

Bill Chameides on "[Creating a moving case for climate action](#)"

[Scientific American - October 23, 2013]

Dana Nuccitelli on "[Does the global warming 'pause' mean what you think it means?](#)"

[Guardian - October 18, 2013]

Michael Gerson on "[Politics is poorly suited to address global warming](#)"

[Washington Post - October 10, 2013]

Paul Thornton on "[On letters from climate-change deniers](#)" [LA Times - October 8, 2013] (*The LA Times will no longer print letters that outright deny that climate change is occurring because, as letters editor Paul Thornton states "Saying 'there's no sign humans have caused climate change' is not stating an opinion, it's asserting a factual inaccuracy"*)

Michael Bloomberg, Hank Paulson and Tom Steyer on "[We need climate-change risk assessment](#)" [Washington Post - October 3, 2013] ("*...today, the world faces one of the greatest humanitarian and economic challenges of our time: the threat of global climate change. And in this arena, our risk assessment systems have broken down.*")

Additional Items of Interest

[Denial dries up: Americans finally seeing the light on climate change](#)

[Grist - November 14, 2013]

[Confronting climate change from the bottom up](#) [MIT News - November 14, 2013] (*MIT Climate CoLab conference tackles climate change by harnessing the power of crowds*)

[Key links between consumption, climate change](#) [Science Daily - November 14, 2013]

[Majority of red-state Americans believe climate change is real, study shows](#)

[Guardian - November 13, 2013]

[Climate change is messing with rainfall across the entire planet](#)

[Climate Progress - November 12, 2013]

[National Geographic maps our coastline after we melt all Earth's ice, raising seas over 200 feet](#) [Climate Progress - November 10, 2013]

[The climate impact of Canada's tar sands is growing](#) [Climate Progress - November 7, 2013]

[Oldest ice core: Finding a 1.5 million year record of Earth's climate](#)

[Science Daily - November 5, 2013]

[Obama Executive Order on climate change preparedness \(Part 1\) - a long-overdue step forward](#) [Climate Science Watch - November 4, 2013]

[Army of volunteers compiles possible evidence of climate change in Alaska](#)

[Alaska Dispatch - November 4, 2013] (*230 Alaska Native volunteer citizen scientists are "documenting unusual events to warn of potential health threats as new plants, bugs and animals migrate to the Far North"*)

California must adopt aggressive climate-change policies, report says

[LA Times - November 4, 2013]

Experts say nuclear power needed to slow warming [PhysOrg - November 3, 2013] (James Hansen, former NASA scientist, Ken Caldeira of Carnegie Institution, Kerry Emanuel of MIT, and Tom Wigley of University of Adelaide, AU signed a letter to environmental groups and world politicians asking them to support nuclear power as a critically important way to cutting fossil fuel pollution)

Hottest September on record, fastest Pacific warming in 10,000 years, warmest Arctic in 120,000 years [Climate Progress - November 3, 2013]

Executive Order - Preparing the United States for the Impacts of Climate Change

[White House - November 1, 2013]

15 world landmarks threatened by climate change [Weather Channel - November 1, 2013]

GOP deeply divided over climate change [Pew Research Center for the People & the Press - November 1, 2013]

Obama taps tribes to assist in adapting to climate change

[Indian Country Today - November 1, 2013]

Indigenous perspectives fill entire October issue of peer-reviewed climate change journal

[Indian Country Today - October 30, 2013]

Arctic warming unprecedented in last 44,000 years [Scientific American - October 24, 2013]

Why we don't care about saving our grandchildren from climate change

[Time - October 21, 2013] (*"A new study shows that human beings are too selfish to endure present pain to avert future climate change. That's why we need win-win solutions now"*)

8 tribes that are way ahead of the climate-adaptation curve

[Indian Country Today - October 15, 2013]

Climate change is here and now: Our view [USA Today - October 14, 2013] (*The editorial board of USA today takes a firm stance on the issue of climate change and debate shift on the issue that needs to occur*)

Sustainability and climate change emerging priorities at World Bank

[Greener Cities - October 12, 2013]

[Global panel seeks economic solutions to climate change](#) [USA Today - October 11, 2013]

[Five ways Monsanto wants to profit off climate change](#) [Grist - October 11, 2013]

[Can cities solve climate change?](#) [Scientific American - October 9, 2013]

[Study reveals urgent new time frame for climate change](#) [PhysOrg - October 9, 2013]

[Global warming poses most immediate threat to tropics, study finds](#)

[LA Times - October 9, 2013]

[Alaska sinks as climate change thaws permafrost](#) [USA Today - October 8, 2013]

[Research shows link between aerosols and climate change](#)

[Blue and Green Tomorrow - October 7, 2013]

[Our house is on fire: The reality of our changing climate](#) [The Nation - October 7, 2013]

[Alaska is world's laboratory for climate change research](#)

[Anchorage Daily News - October 5, 2013]

[Native tribes' traditional knowledge can help US adapt to climate change](#)

[Science Daily - October 3, 2013]

[Risky Business adds up climate change costs](#) [SF Gate - October 2, 2013] (*a project by a hedge fund billionaire turned climate activist... "will try to forecast just how much money climate change could cost the United States in years to come"*)

[Technology is moving too slowly to make climate change target](#)

[MIT Technology Review - October 1, 2013]

[The final assessment](#) [Nature - September 18, 2013] (*"The Intergovernmental Panel on Climate Change has provided invaluable evidence for policy-makers, but giant reports should give way to nimbler, more relevant research"*)

Images to Ponder

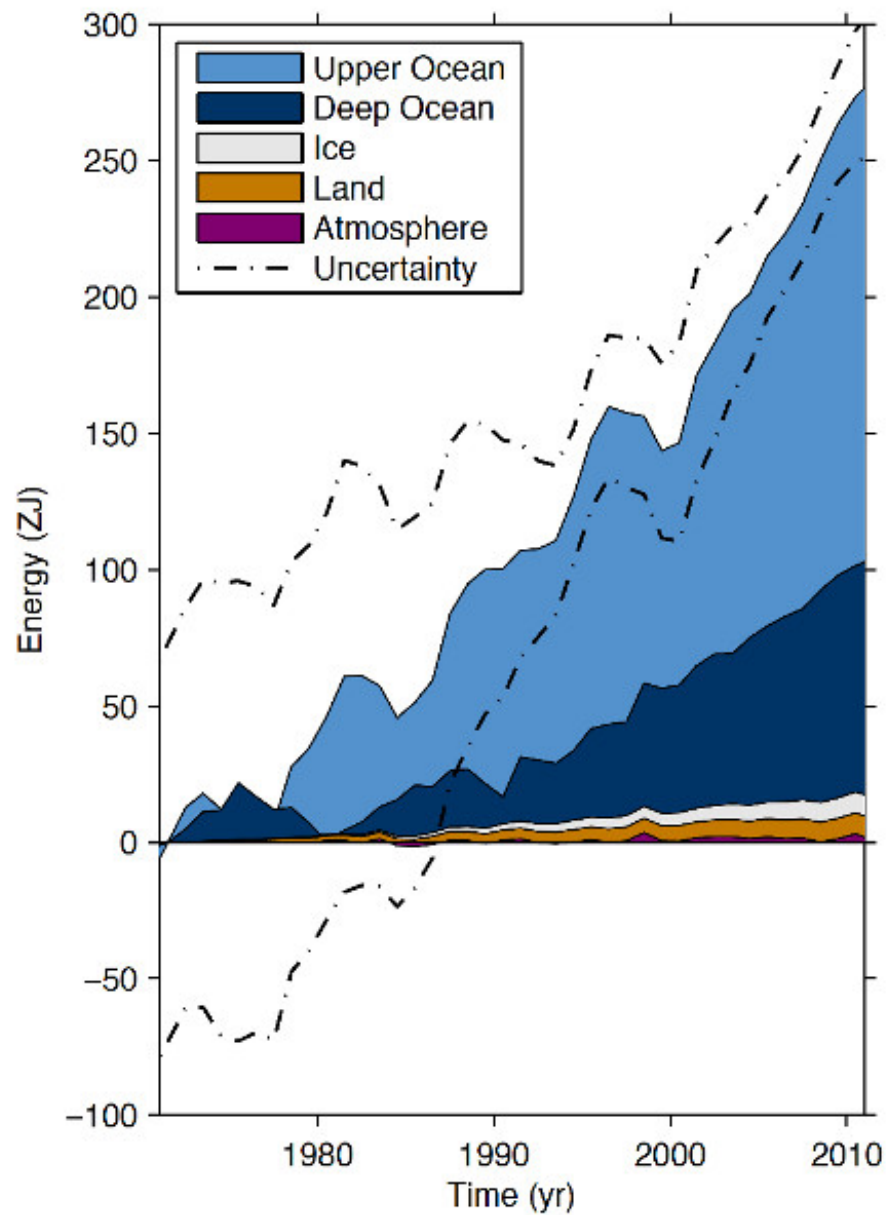
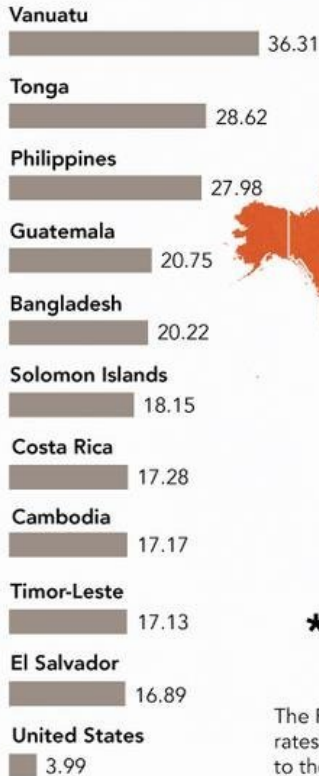


Image credit: <http://www.theguardian.com/environment/climate-consensus-97-per-cent/2013/oct/18/global-warming-pause-meaning>

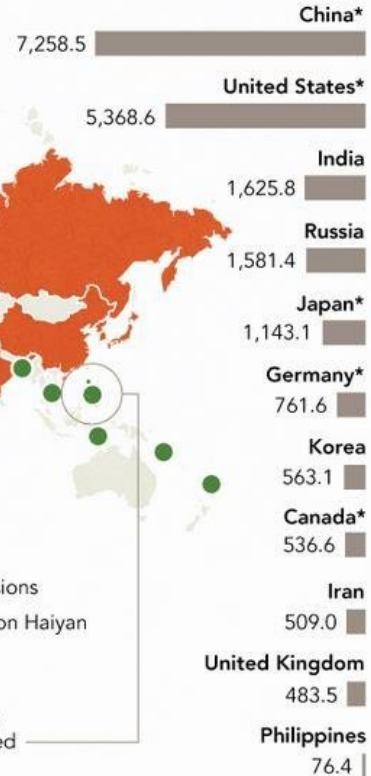
CLIMATE CHANGE ISN'T JUST AWFUL, IT'S UNFAIR

As sea levels rise with climate change, storm surges caused by typhoons such as Haiyan turn increasingly deadly in coastal nations. The graph below shows that while countries such as the Philippines contribute much less to the phenomenon, the consequences of climate change affect them in a disproportionate way.

MOST SUSCEPTIBLE TO CLIMATE CHANGE (Percent risk, World Risk Index)



MOST CO₂ EMISSIONS FROM FUEL COMBUSTION (Millions of tons)



*Number of fatalities as of November 14, 2013.

Sources: Joint Typhoon Warning Center; The New York Times; Associated Press; Naderev Madla Saño, Philippines Climate Change Commissioner; United Nations University Institute for Environment and Human Security, Alliance Development Works, The Nature Conservancy, "World Risk Report 2012;" International Energy Agency; United Nations Department of Humanitarian Affairs; BBC News

THE HUFFINGTON POST

Image credit: <http://a.disquscdn.com/uploads/mediaembed/images/706/2723/original.jpg>

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